



U.S. Department of Energy

**Office of River Protection**

0060284

P.O. Box 450

Richland, Washington 99352

AUG 22 2003

03-ED-134

Mr. Michael A. Wilson, Program Manager  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
1315 W. Fourth Avenue  
Kennewick, Washington 99336

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SEP 11 2003

**EDMC**

Dear Mr. Wilson:

**REQUEST FOR THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY  
(ECOLOGY) WAIVER OF DIRECT-BURIED TRANSFER LINE PRESSURE/LEAK TEST  
TO SUPPORT PUMPING OF CATCH TANK 241-ER-311**

In July 1995, the U.S. Department of Energy (DOE), Richland Operations Office issued letter 95-PCA-342, "Identification of Non-Permitted Treatment, Storage, or Disposal (TSD) Facilities and Related Potential Environmental Non-Compliant Conditions at the Hanford Site." This letter became known as the Silver List. In accordance with the Silver List Close-Out Form, Tracking Number 27, "Waste in Tank Secondary Systems," dated May 13, 1996, Catch Tank 241-ER-311 must be pumped to heel whenever the tank level exceeds the nominal heel volume of 1,500 gallons. The transfer of Tank 241-ER-311 contents last occurred in July 2001. In August 2002, DOE, Office of River Protection (ORP) requested Ecology's concurrence to defer the pumping of Tank 241-ER-311 until the liquid volume increased to 3,500 gallons. Ecology agreed to the deferral by electronic mail on September 20, 2002.

The Silver List agreement lists the heel value for Tank 241-ER-311 as 1,500 gallons and the tank capacity as 17,682 gallons. The July 2001 transfer was secured when the transfer pump cavitated and lost suction at the tank level of 1,847 gallons. Prior to July 2001, the catch tank had been pumped in June 1996. The June 1996 transfer was secured when the pump cavitated with a final volume of 1,790 gallons. Due to the pumping characteristics of this tank, the effective heel is approximately 1,800 gallons. During the past two years, 1,753 gallons of rainfall intrusion have been collected, resulting in a tank level of 3,600 gallons, and the tank must be pumped.

The Tank 241-ER-311 to Double-Shell Tank (DST) System transfer route is composed of Resource Conservation and Recovery Act of 1976 compliant transfer lines from the 241-ER-151 diversion box to the DST system. Transfer Line V-224, which connects the 241-ER-311 catch tank to the 241-ER-151 diversion box, is direct-buried and 109 feet in length, and a pressure/leak test is required annually or before each use if the period between transfers exceeds one year. Transfer Line V-224 was last pressure tested on August 9, 2000, per Work Package 2E-99-0566/0. The contents of Tank 241-ER-311 were transferred through V-224 in July 2001. There has been no other activity associated with this transfer line since July 2001.

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Title 40 Code of Federal Regulations (CFR) Subpart J – Tank Systems, Section 265.193, "Containment and Detection of Releases," requires the annual leak assessment of active transfer lines that do not have compliant secondary containment. Washington Administrative Code 173-303-640(i)(c) invokes 40 CFR 265.193 requirements. Pursuant to the referenced regulation, Transfer Line V-224, which has been inactive since July 2001, must have a pressure/leak assessment performed prior to its use.

The following actions will need to be completed to allow the pressure/leak assessment of Transfer Line V-244:

1. Perform pit entries to install pressure test equipment;
2. Pressure test V-224 transfer line; and
3. Remove pressure test equipment and reconfigure the transfer route.

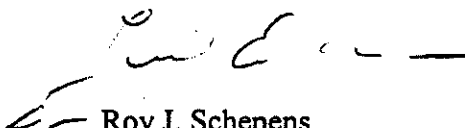
The total cost to perform the pressure/leak test is estimated to be \$115,000.

The risk imposed to the environment by this transfer is low. The liquid is accumulated rainwater from the 241-ER-151 and 241-ER-152 diversion boxes, the transfer time is short (less than one hour), the hydraulic profile of the transfer line is favorable (slope 1/16" per foot), and material balance calculations are performed during the transfer. The sending and receiving tanks are monitored by Enraf-Nonius Series 854 level instruments.

Due to the low risk posed by the transfer and the cost of performing the pressure test, ORP requests Ecology's waiver of the regulatory requirement to perform the pressure/leak assessment of Transfer Line V-224. The waiver of the pressure/leak test of the direct-buried transfer line was discussed with Ecology staff on July 28, 2003.

If you have any questions, please contact me, or your staff may contact James E. Rasmussen, Director, Environmental Division, (509) 376-2247, or Phil C. Miller, CH2M HILL Hanford Group, Inc., (509) 373-1920.

Sincerely,



Roy J. Schepens  
Manager

ED:DWB

cc: See page 3

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